BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents *will not* correct images, please do not report the images to the Image Problem Mailbox.

What is claimed is:

1. A semiconductor dry etching system comprising:

a plasma chamber in which at least polymer is introduced, excess polymer forming and subsequently peeling off inner vertical walls of the chamber and falling down due to gravity; and

a electrically biased mechanism to hold a semiconductor wafer over the plasma chamber, such that the polymer is electrostatically attracted to the wafer, positioning of the wafer over the chamber preventing the excess polymer from falling onto the wafer.

2. The system of claim 1, wherein the electrically biased mechanism comprises a wafer lifter to hold the wafer over the plasma chamber.

3. The system of claim 2, wherein the electrically biased mechanism further comprises a wafer chuck to move the wafer upside-down to over the plasma chamber.

4. The system of claim 3, wherein the electrically biased mechanism further comprises a bias supply to electrically bias at least one of the wafer chuck and the wafer lifter.

5. The system of claim 4, wherein the wafer lifter is vertically movable between a lower position to an upper position, where the lower position promotes loading of the wafer from the wafer chuck, and the upper position enables the bias supply to electrically couple with the wafer chuck for biasing of the wafer.

6. The system of claim 2, wherein the wafer lifter comprises a tubular body having a substantially open-ended cap at a downward-facing end thereof against which the wafer is held.

7. The system of claim 1, further comprising one or more coils to induce a varying magnetic field within the chamber.

8. The system of claim 7, wherein the one or more coils comprise one or more induction coils coupled to an inductive supply.

9. The system of claim 7, wherein the one or more coils comprise one or more electromagnetic coils coupled to an electromagnetic supply.

10. The system of claim 7, further comprising one or more multi-pole magnets cooperating with the one or more coils to assist inducement of the varying magnetic field within the chamber.

11. The system of claim 1, further comprising a dielectric window below the chamber.

12. A semiconductor dry etching system comprising:

a plasma chamber in which at least polymer is introduced;

a wafer lifter to hold a semiconductor wafer upside-down over the plasma chamber; and

a bias supply to bias the wafer chuck and the wafer, such that the polymer is electrostatically attracted to the wafer.

13. The system of claim 12, further comprising a wafer chuck to move the wafer upside-down to over the plasma chamber for the wafer lifter to hold the wafer upside-down over the plasma chamber.

14. The system of claim 12, wherein the wafer lifter comprises a tubular body having a substantially open-ended cap at a downward-facing end thereof against which the wafer is held.

15. The system of claim 12, wherein the wafer lifter is vertically movable between a lower position to an upper position, where the lower position promotes loading of the wafer, and the upper position enables the bias supply to electrically couple with the wafer for biasing thereof.

16. The system of claim 12, further comprising one or more coils to induce a varying magnetic field within the chamber.

17. The system of claim 16, wherein the one or more coils comprise one or more induction coils coupled to an inductive supply.

18. The system of claim 16, further comprising one or more magnets cooperating with the one or more coils to assist inducement of the varying magnetic field within the chamber.

19. The system of claim 12, further comprising a dielectric window below the chamber.

20. A method comprising:

lowering a wafer lifter positioned over a plasma chamber of a semiconductor dry etching system;

loading a semiconductor wafer upside-down into the wafer lifter;

raising the wafer lifter to electrically couple the wafer with a cathode of the semiconductor dry etching system; and

performing dry etching semiconductor processing on the wafer.